



Box Seq & Spec #4

ATTORNEY'S DOCKET NUMBER: 2002850-0009 (S98-161)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Fount *et al.*  
Serial No.: 09/728,720  
Filed: December 1, 2000  
For: PREVENTION AND TREATMENT OF HCV INFECTION EMPLOYING  
ANTIBODIES DIRECTED AGAINST CONFORMATIONAL EPITOPES

Box SEQUENCE  
Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

**STATEMENT UNDER 37 CFR §1.821**

Applicants enclose herewith a substitute paper copy and a substitute computer-readable diskette copy of the Sequence Listing required under 37 C.F.R. 1.821-1.825 for the above-referenced patent application. The substitute copies of the sequence listing submitted herewith include no new matter.

The undersigned states that the content of the paper copy of the Sequence Listing contains the identical information as does the computer-readable diskette copy.

Please charge any fees that may be required or credit any overpayments to our Deposit Account No. 03-1721.

Respectfully submitted,

C. Hunter Baker, M.D., Ph.D.  
Reg. No.: 46,533

CHOATE, HALL & STEWART  
Exchange Place  
53 State Street  
Boston, MA 02109  
(617) 248-5000  
Dated: March 20, 2001

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner For Patents, Washington, D.C. 20231  
on March 20, 2001

OIPE

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/728,720

DATE: 12/18/2000  
TIME: 14:02:22

Input Set : A:\Stanfor1.app

Output Set: N:\CRF3\12182000\I728720.raw

Does Not Comply  
Corrected Diskette Needed

PR 4-5

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3 <110> APPLICANT: Fong, Steven K.H.  
 4 Hadlock, Kenneth G.  
 5 <120> TITLE OF INVENTION: Prevention and Treatment of HCV Infection Employing  
 6 Antibodies that Inhibit the Interaction of HCV Virions  
 7 with Their Receptor.  
 8  
 9 <130> FILE REFERENCE: 2002850-0009  
 10 <140> CURRENT APPLICATION NUMBER: US/09/728,720  
 11 <141> CURRENT FILING DATE: 2000-12-01  
 12 <160> NUMBER OF SEQ ID NOS: 35  
 13 <170> SOFTWARE: PatentIn Ver. 2.1  
 14 <210> SEQ ID NO: 1  
 15 <211> LENGTH: 160  
 16 <212> TYPE: DNA  
 17 <213> ORGANISM: Hepatitis C Virus  
 18 <400> SEQUENCE: 1  
 19 ctcacactgga ttcaccaaag tctgcgggag gccctcctgt gtcacgggag gggcgggcaa 60  
 20 caacacccctg cactgcacca ctgattgctt ccgcaagcat ccggagacca cactactctg 120  
 21 gtgcggctcc ggtccctgga ttcacccaag gtgcctggtc 160  
 22 <210> SEQ ID NO: 2  
 23 <211> LENGTH: 160  
 24 <212> TYPE: DNA  
 25 <213> ORGANISM: Hepatitis C Virus  
 26 <400> SEQUENCE: 2  
 27 ctcacactgga ttcaccaaag tctgcgggag gccctcctgt gtcacgggag gggcgggcaa 60  
 28 caacacccctg cactgcacca ctgattgctt ccgcaagcat ccggagacca cgtactctcg 120  
 29 gtgcggctcc ggtccctgga ttcacccaag gtgcctggtc 160  
 30 <210> SEQ ID NO: 3  
 31 <211> LENGTH: 160  
 32 <212> TYPE: DNA  
 33 <213> ORGANISM: Bovine Pancreatic Ribonuclease A  
 34 <400> SEQUENCE: 3  
 35 tagtactggg ttcactaaga cgtgcgggag ccccccctgt aacatcgggg gggtcggtaa 60  
 36 ccgcaccltg atctgcacca cggactgctt ccggaagcac ccgagggata cttaacacaa 120  
 37 atgtggctcg gggccctggg tgacacctaag gtgcctagta 160  
 38 <210> SEQ ID NO: 4  
 39 <211> LENGTH: 160  
 40 <212> TYPE: DNA  
 41 <213> ORGANISM: T7 Bacteriophage  
 42 <400> SEQUENCE: 4  
 43 tggacacggg ttcaccaaag cgtgtggggc ccccccctgt aacatcgggg gggtcggcaa 60  
 44 taacaccltg acttgcacca cggactgctt ccggaagcac ccgagggata cttaacacaa 120  
 45 atgtggctcg gggccctggg tgacacctaag gtgcctagta 160  
 46 <210> SEQ ID NO: 5  
 47 <211> LENGTH: 166  
 48 <212> TYPE: DNA  
 49 <213> ORGANISM: Bacterial Protein  
 50 <400> SEQUENCE: 5

## RAW SEQUENCE LISTING

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Input Set : A:\Stanfor1.app

Output Set: N:\CRF3\12182000\I728720.raw

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```

69 ctccactggc tacaccaaga ctgcgggggc accacccctgc cgcattlagag ctgacttcaa 60
70 tgcacagcatg gacttggtgt gccccacgga ctgttttagg aagcatcctg ataccacctt 120
71 catcaaatgt ggcctctgggc cctggctcac gccaaagtgc ctgctc 166
74 <210> SEQ ID NO: 6
75 <211> LENGTH: 167
76 <212> TYPE: DNA
77 <213> ORGANISM: Artificial Sequence
79 <220> FEATURE:
80 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
82 <400> SEQUENCE: 6
83 ctccactgtt tcccaaaaac ttgcggggca ccaacccctgc gcacacagagc tgacttcaat 60
84 gccagcacgg acctctgtg gccccacgga ctgttttagg aagcatcctg aagcaattac 120
85 atcaaatgtg gctctgggc cccctctgta cgcacaaagt cctcata 167
88 <210> SEQ ID NO: 7
89 <211> LENGTH: 166
90 <212> TYPE: DNA
91 <213> ORGANISM: Artificial Sequence
93 <220> FEATURE:
94 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
96 <400> SEQUENCE: 7
97 cgggactggg ttcactaaga catgcggtgc accaccttgc cgcattagga aagactacaa 60
98 cagcacatc gatttatgt gccccacaga ctgttttagg aagcacccag atgctaccta 120
99 tcttaagtgt ggcaggggc cttggttaac tcccaggtgc atggtta 166
102 <210> SEQ ID NO: 8
103 <211> LENGTH: 166
104 <212> TYPE: DNA
105 <213> ORGANISM: Hepatitis C Virus
107 <400> SEQUENCE: 8
108 tgggactggg ttcactaaga catgcggtgc accaccttgc cgcattagga gggactgcaa 60
109 cgggaacctc gacctattgt gccccacaga ctgttttagg aagcacccag atgctaccta 120
110 ccttaagtgt ggcaggggc cttggttaac tcccaggtgc atggtta 166
112 <210> SEQ ID NO: 9
113 <211> LENGTH: 160
114 <212> TYPE: DNA
115 <213> ORGANISM: Hepatitis C Virus
116 <400> SEQUENCE: 9
117 ctcacttggg ttcaccaaaag tgcgggggc gcccccctgt gtcacggag gggcgggcaa 60
118 caacaccttg cgtgcccaca ctgattgttt ccgcaagcat ccggaagcca cgtactctcg 120
119 gtcgggctcc ggtccctgga ttacgcccag gtgcctggtc 160
124 <210> SEQ ID NO: 10
125 <211> LENGTH: 160
126 <212> TYPE: DNA
127 <213> ORGANISM: Hepatitis C Virus
129 <400> SEQUENCE: 10
130 tggcacaggg ttcaccaaga cgtgtggggc ccccctatgt aacatcgggg gggcgggcaa 60
131 taacaccttg acctgcccga cggactgttt ccggaagcac cccgaggcca ctacaccaa 120
132 atgtggttcg ggccttggc tgacacctag gtgcatagtt 160
135 <210> SEQ ID NO: 11
136 <211> LENGTH: 164

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Input Set : A:\Stanfor1.app  
Output Set: N:\CRF3\12182000\I728720.raw

137 <212> TYPE: DNA  
138 <213> ORGANISM: Hepatitis C Virus  
140 <400> SEQUENCE: 11  
141 ctccactgtt tcaccaaagc ttggggggcga ccacccctgcc gcatcagagc tgactttaat 60  
142 gccagcaggg acctgctgtg cccacacggac tgtttcagga agcatcctga agccacttac 120  
143 atcaaatgtg gctctgggccc cctgtgacgc caaagtgcct gata 164  
146 <210> SEQ ID NO: 12  
147 <211> LENGTH: 167  
148 <212> TYPE: DNA  
149 <213> ORGANISM: Artificial Sequence  
151 <220> FEATURE:  
152 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic  
154 <400> SEQUENCE: 12  
155 tgggaactggg ttcaactaaga catgggggtgc accacccctgc cgcattagga gggactgcga 60  
156 cggaaacccc gacctattat gcccccacaga clytttcaga aagcaccacg atactaccta 120  
157 ccttaagtgt gggagcggggg ccttggttga ccccaaatg catggtg 167  
160 <210> SEQ ID NO: 13  
161 <211> LENGTH: 8  
162 <212> TYPE: PRT  
163 <213> ORGANISM: Artificial Sequence  
165 <220> FEATURE:  
166 <223> OTHER INFORMATION: Description of Artificial Sequence: Flag Epitope  
168 <400> SEQUENCE: 13  
169 Asp Tyr Lys Asp Asp Asp Asp Lys  
170 1 5  
173 <210> SEQ ID NO: 14  
174 <211> LENGTH: 10  
175 <212> TYPE: PRT  
176 <213> ORGANISM: T7 Bacteriophage  
178 <400> SEQUENCE: 14  
179 Met Ala Ser Met Thr Gly Gly Gln Met Gly  
180 1 5 10  
183 <210> SEQ ID NO: 15  
184 <211> LENGTH: 15  
185 <212> TYPE: PRT  
186 <213> ORGANISM: Artificial Sequence  
188 <220> FEATURE:  
189 <223> OTHER INFORMATION: Description of Artificial Sequence: S-Tag Sequence  
191 <400> SEQUENCE: 15  
192 Lys Glu Thr Ala Ala Ala Lys Phe Glu Arg Gln His Met Asp Ser  
193 1 5 10 15  
196 <210> SEQ ID NO: 16  
197 <211> LENGTH: 20  
198 <212> TYPE: DNA  
199 <213> ORGANISM: Hepatitis C Virus  
201 <400> SEQUENCE: 16  
202 cgcgcacraa gtasgggact  
205 <210> SEQ ID NO: 17  
206 <211> LENGTH: 21

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/728,720

DATE: 12/18/2000

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Input Set : A:\Stanfor1.app

Output Set: N:\CRF3\12182000\I728720.raw

207 <212> TYPE: DNA  
 208 <213> ORGANISM: Hepatitis C Virus  
 210 <400> SEQUENCE: 17  
 w--> 211 cgcattggcct gggayattg g  
 214 <210> SEQ ID NO: 18  
 215 <211> LENGTH: 32  
 216 <212> TYPE: DNA  
 217 <213> ORGANISM: Hepatitis C Virus  
 219 <400> SEQUENCE: 18  
 220 cgaagcttca tatgatcgt ggtgctcact gg  
 223 <210> SEQ ID NO: 19  
 224 <211> LENGTH: 38  
 225 <212> TYPE: DNA  
 226 <213> ORGANISM: Hepatitis C Virus  
 228 <400> SEQUENCE: 19  
 229 gcggatccct qcagctacaa actgacctga gaattcaa  
 232 <210> SEQ ID NO: 20  
 233 <211> LENGTH: 34  
 234 <212> TYPE: DNA  
 235 <213> ORGANISM: Hepatitis C Virus  
 237 <400> SEQUENCE: 20  
 238 cgcattatgga gctgcgggg gcccactggg ggt  
 241 <210> SEQ ID NO: 21  
 242 <211> LENGTH: 38  
 243 <212> TYPE: DNA  
 244 <213> ORGANISM: Hepatitis C Virus  
 246 <400> SEQUENCE: 21  
 247 gctctagact qcagctatat gccagcctga agcaccat  
 250 <210> SEQ ID NO: 22  
 251 <211> LENGTH: 34  
 252 <212> TYPE: DNA  
 253 <213> ORGANISM: Hepatitis C Virus  
 255 <400> SEQUENCE: 22  
 256 cactcgagcc atggttggcg gggctcattg gggc  
 259 <210> SEQ ID NO: 23  
 260 <211> LENGTH: 40  
 261 <212> TYPE: DNA  
 262 <213> ORGANISM: Hepatitis C Virus  
 264 <400> SEQUENCE: 23  
 265 tcgaattcgg atcctacaaa gcacctttta ggagataagg  
 268 <210> SEQ ID NO: 24  
 269 <211> LENGTH: 34  
 270 <212> TYPE: DNA  
 271 <213> ORGANISM: Hepatitis C Virus  
 273 <400> SEQUENCE: 24  
 274 cgtcggagcc atggttttcg gggccattg ggtg  
 277 <210> SEQ ID NO: 25  
 278 <211> LENGTH: 40  
 279 <212> TYPE: DNA

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see item 10 on Eva Anna  
 sheet

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/728,720

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 TIME: 14:02:22

Input Set : A:\Stanfor1.app  
 Output Set: N:\CRF3\12182000\I728720.raw

280 <213> ORGANISM: Hepatitis C Virus  
 282 <400> SEQUENCE: 25  
 283 tgaatttcgg aacctacaga gacgctttaa ggaagtaggc 40  
 286 <210> SEQ ID NO: 26  
 287 <211> LENGTH: 23  
 288 <212> TYPE: DNA  
 289 <213> ORGANISM: Hepatitis C Virus  
 291 <400> SEQUENCE: 26  
 W--> 292 tggttcgggt gywntggat gaa 23  
 295 <210> SEQ ID NO: 27  
 296 <211> LENGTH: 26  
 297 <212> TYPE: DNA  
 298 <213> ORGANISM: Hepatitis C Virus  
 300 <400> SEQUENCE: 27  
 W--> 301 taatgccana rockrtangg gtagtc 26  
 304 <210> SEQ ID NO: 28  
 305 <211> LENGTH: 379  
 306 <212> TYPE: PRT  
 307 <213> ORGANISM: Artificial Sequence  
 309 <220> FEATURE:  
 310 <223> OTHER INFORMATION: Description of Artificial Sequence:Display Vector  
 311 Sequence with E2 insert of sflb-E2  
 313 <400> SEQUENCE: 28  
 314 Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro  
 315 1 5 10 15  
 317 Gly Ser Thr Gly Asp Tyr Pro Tyr Asp Val Pro Asp Tyr Ala Gly Ala  
 318 20 25 30  
 320 Gln Pro Ala Arg Ser Thr Thr Tyr Thr Thr Gly Gly Ala Ala Ser Arg  
 321 35 40 45  
 323 Thr Thr Gly Thr Phe Thr Ser Leu Phe Asn Ala Gly Ser Ser Gln Lys  
 324 50 55 60  
 326 Ile Gln Leu Ile Asn Thr Asn Gly Ser Trp His Ile Asn Arg Thr Ala  
 327 65 70 75 80  
 329 Leu Asn Cys Asn Asp Ser Leu Asn Thr Gly Phe Leu Ala Ala Leu Phe  
 330 85 90 95  
 332 Tyr Val His Arg Phe Asn Ala Ser Gly Cys Pro Ala Arg Met Ala Ser  
 333 100 105 110  
 335 Cys Arg Ser Ile Asp Ala Phe Asp Gln Gly Trp Gly Pro Ile Thr Tyr  
 336 115 120 125  
 338 Ala Glu Ser His Ser Ser Asp Gln Arg Pro Tyr Cys Trp His Tyr Ala  
 339 130 135 140  
 341 Pro Lys Pro Cys Gly Ile Val Pro Ala Ser Gln Val Cys Gly Pro Val  
 342 145 150 155 160  
 344 Tyr Cys Phe Thr Pro Ser Pro Val Val Val Gly Thr Thr Asp His His  
 345 165 170 175  
 347 Gly Val Pro Thr Tyr Ser Trp Gly Glu Asn Glu Thr Asp Val Leu Leu  
 348 180 185 190  
 350 Leu Asn Asn Thr Arg Pro Pro Gln Gly Asn Trp Phe Gly Cys Thr Trp  
 351 195 200 205

*see item 10  
 on Enr Summary Sheet*

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VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/728,720

DATE: 12/18/2000  
TIME: 14:02:23

Input Set : A:\Stanfor1.app  
Output Set: N:\CRF3\12182000\I728720.raw

L:12 M:270 C: Current Application Number differs. Replaced Current Application Number  
L:211 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:17  
L:211 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:17  
L:211 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:17  
L:211 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:17  
L:211 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:17  
L:292 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:26  
L:292 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:26  
L:292 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:26  
L:292 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:26  
L:292 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:26  
L:301 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:27  
L:301 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:27  
L:301 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:27  
L:301 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:27  
L:301 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:27

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